



# Togiak

National Wildlife Refuge | Alaska

## Climate and habitat monitoring, Traditional Ecological Knowledge, and historical documents.

### Water & Temperature monitoring

Beaudreault, S. 2006. Monitoring river water temperature in Togiak National Wildlife Refuge, southwest Alaska. U.S. Fish and Wildlife Service. Dillingham, Alaska.

Collins, A.P. 2001. Monitoring water quality of the Kanektok River, Southwest Alaska: Addressing issues and concerns in the Togiak Wilderness Area, Togiak National Wildlife Refuge." Unpublished report. Dillingham, Alaska: U.S. Fish & Wildlife Service, Togiak National Wildlife Refuge.

Coleman, J.M. 2012. Quantity and quality of freshwater rearing habitat in relation to juvenile Pacific salmon abundance in the Kulukak River, Alaska. MS Thesis. University of Alaska, Fairbanks.

Lisac, M.J., C. Woll, J. Coleman, T. Sutton, and A. Prakash. 2012. Quantity and quality of freshwater rearing habitat in relation to juvenile Pacific salmon abundance in the Kulukak River, 2010. Progress Report. U.S. Fish and Wildlife Service. Dillingham, Alaska.

Lowe, S.J., S. Piazza and P. Walsh. 2013. Estimates of surface area and volume for 25 lakes, Togiak National Wildlife Refuge, southwestern Alaska. U.S. Fish and Wildlife Service. Dillingham, Alaska.

MacDonald, R. 1996. Baseline physical, biological and chemical parameters of 21 lakes, Togiak National Wildlife Refuge, 1984 - 1989. U.S. Fish and Wildlife Service. Dillingham, Alaska.

Peck, A. and P. Walsh, 2006. Maintaining aquatic ecosystem health: Water quality and quantity investigations at Togiak National Wildlife Refuge, southwest Alaska. Poster presentation at 13<sup>th</sup> Annual Conference of The Wildlife Society – Anchorage, Alaska.

Roed, M. and M. Swaim. 2012. Stream Temperature Monitoring on Togiak National Wildlife Refuge, Alaska, 2001 to 2010. U.S. Fish and Wildlife Service. Dillingham.

Swaim, M. 2013 (in prep). Stream Temperature Monitoring on Togiak National Wildlife Refuge, Alaska, 2001-2012. U.S. Fish and Wildlife Service. Dillingham.

Winfree, M. 2009. Water-quality monitoring of the Salmon River: Study Protocol. U.S. Fish and Wildlife Service. U.S. Fish and Wildlife Service. Dillingham, Alaska.

Winfree, M. 2009. Togiak National Wildlife Refuge earth cover accuracy assessment. U.S. Fish and Wildlife Service. U.S. Fish and Wildlife Service. Dillingham, Alaska.

Winfree, M. 2010. Water quantity monitoring on Togiak National Wildlife Refuge. Study Protocol. U.S. Fish and Wildlife Service. U.S. Fish and Wildlife Service. Dillingham, Alaska.

Winfree, M. 2011. Monitoring water quality in the Salmon River, Togiak National Wildlife Refuge, 2010. U.S. Fish and Wildlife Service. Dillingham, Alaska.

- Winfree, M. 2013. Monitoring Water quality in the Salmon River, Togiak National Wildlife Refuge, 2010-2011. U.S. Fish and Wildlife Service. Togiak National Wildlife Refuge. Dillingham, Alaska.
- Woll, C. 2012. Using multispectral aerial imagery and GIS-based approaches to quantify juvenile salmon rearing habitat in the Kulukak River, Alaska. MS Thesis. University of Alaska, Fairbanks.
- Woll, C., A. Prakash and T. Sutton. 2011. A Case-Study of in-Stream Juvenile Salmon Habitat Classification Using Decision-Based Fusion of Multispectral Aerial Images. *Applied Remote Sensing Journal*. 2011 2(1): 37-46

### **Glaciers & Geology**

- Briner, J. P., and D. S. Kaufman. 2000. Late Pleistocene glaciation of the southwestern Ahklun Mountains, Alaska. *Quaternary Research* 53:13-22.
- Briner, J. P., D. S. Kaufman, A. Werner, M. Caffee, L. Levy, W. F. Manley, M. R. Kaplan, and R. C. Finkel. 2002. Glacier readvance during the late glacial (Younger Dryas?) in the Ahklun Mountains, southwestern Alaska. *Geology*; August 2002; v. 30; no. 8; p. 679-682.
- Kaufman, D. S., F. S. Hu, J. P. Briner, , A. Werner, and B. P. Finney. 2003. A ~33,000 year record of environmental change from Arolik Lake, Ahklun Mountains, Alaska, USA. *J. Paleolimnology* 30:343-362.
- Kaufman, D. S., W. F. Manley, S. L. Forman, and P. W. Layer. 2001. Pre-late-Wisconsin glacial history, coastal Ahklun Mountains, southwestern Alaska -- new amino acid, thermoluminescence, and  $^{40}\text{Ar}/^{39}\text{Ar}$  results. *Quaternary Science Reviews* 20:337-352.
- Kaufman, D. S., W. F. Manley, A. P. Wolfe, F. S. Hu, S. J. Preece, J. A. Westgate, and S. L. Forman. 2001. The last interglacial to glacial transition, Togiak Bay, southwestern Alaska. *Quaternary Research* 55:190-202.
- Kaufman, D.S., S.L. Forman, , P.D. Lea, and C.W. Wobus. 1996. Age of pre-late-Wisconsin glacial-estuarine sedimentation, Bristol Bay, Alaska: *Quaternary Research* 45, 59-72.
- Walsh, P., D. Kaufman, and P. Liedberg. 2007. Inventory of the Ahklun Mountain glaciers, southwest Alaska. Togiak National Wildlife Refuge, Dillingham, Alaska. Alaska Refuges Technical Report 07-004. <http://alaska.fws.gov/nwr/refugereports/index.htm>.

### **Vegetation**

- Collins, G. H. 2003. Togiak National Wildlife Refuge earth cover classification: progress report. Togiak National Wildlife Refuge.
- Hu, F. S., Brubaker, L. B., and P. M. Anderson. 1995. Postglacial vegetation and climate change in the northern Bristol Bay region, southwestern Alaska. *Quaternary Research* 43:382-392.
- Hu, F. S., B. P. Finney, and L. B. Brubaker. 2001. Effects of holocene *Alnus* expansion on aquatic productivity, nitrogen cycling, and soil development in southwestern Alaska. *Ecosystems* 4:358-368.
- Hu, F. S., B. Y. Lee, D. S. Kaufman, S. Yoneji, D. M. Nelson, and P. D. Henne. 2002. Response of tundra ecosystem in southwestern Alaska to Younger-Dryas climatic oscillation. *Global Change Biology* 8:1156-1163.

- Johnson, H. L. 1994. Range inventory and monitoring following caribou reintroduction to the Nushagak Peninsula. Progress Report. Togiak NWR, Dillingham. 144 pp.
- Swanson, J.D., and D.J. Laplant. 1987. Range inventory of Hagemeister Island, Alaska, Vol. 1 and 2. USDA, Soil Conservation Service, Anchorage, AK.
- Walsh, P. 2007. Assessment of lichen growth on Hagemeister Island, 2003-2007. U. S. Fish and Wildlife Service, Togiak National Wildlife Refuge, Dillingham, Alaska.
- Walsh, P., A. Aderman, and M. Winfree. 2007. Monitoring the recovery of lichen communities on Hagemeister Island. U.S. Fish and Wildlife Service, Togiak National Wildlife Refuge, Dillingham, Alaska. Alaska Refuges Report Series no. 07-002 (pdf).
- Winfree, M. 2005. Preliminary aerial reconnaissance surveys of eelgrass beds on Togiak National Wildlife Refuge, Alaska, 2004. Progress Report. Togiak National Wildlife Refuge. Dillingham, Alaska.
- Winfree, M. 2006. Aerial photography survey of eelgrass beds along Togiak National Wildlife Refuge coastlines, Alaska. Progress Report. Togiak National Wildlife Refuge. Dillingham, Alaska.

### **Traditional Ecological Knowledge**

- Kowta, M. 1963. Old Togiak in prehistory. Dissertation, University of California - Los Angeles, CA. 511 pp.
- LaVine, R. and M.J. Lisac. 2003. Oral history and Traditional Ecological Knowledge gathering within Togiak National Wildlife Refuge. Progress Report.
- LaVine, R., M.J. Lisac and P. Coiley-Kenner. 2007. Traditional ecological knowledge of 20th century ecosystems and fish populations in the Kuskokwim Bay Region. Fisheries Resource Monitoring Program Project Final Report FIS 04 – 351. U.S. Fish and Wildlife Service, Togiak National Wildlife Refuge, Dillingham, Alaska.
- Lisac, M. J. 1992. Memorandum to Federal Subsistence Division summarizing interviews conducted in Quinhagak and Goodnews Bay concerning subsistence harvest of rainbow trout.